



# ***Facts About...***

## **COMAR 26.11.19.26-1 Fiberglass Boat Manufacturing**

03/02/2015

### **PURPOSE OF NEW REGULATION AND AMENDMENT**

The new regulation COMAR 26.11.19.26-1, Control of Volatile Organic Compounds from Fiberglass Boat Manufacturing, adopts the requirements of the EPA's Control Techniques Guidelines (CTG) for this category. EPA develops CTGs as guidance on control requirements for source categories. States can follow the CTGs or adopt more restrictive standards. MDE proposes to adopt new volatile organic compound (VOC) limits, standards for application methods, and work practice requirements which are consistent with the most recent CTG recommendations applicable to fiberglass boat manufacturing. The new regulation affects manufacturers of fiberglass boats. COMAR 26.11.19.26, Control of Volatile Organic Compounds from Reinforced Plastic Manufacturing, is amended to exempt fiberglass boat manufacturing.

### **Background**

The EPA first published an assessment of VOC emissions from fiberglass boat manufacturing in 1990. This assessment evaluated VOC emissions from fiberglass boat manufacturing and potential control options.

The National Emission Standards for Hazardous Air Pollutants for Boat Manufacturing, 40 CFR part 63, subpart VVVV (2001 NESHAP) were promulgated in 2001. Emission standards under the 2001 NESHAP were for organic hazardous air pollutants (HAPs) based on low-HAP resins and gel coats and low-emitting resin application technology.

California and several other states have specific regulations that control VOC emissions from fiberglass boat manufacturing operations, as part of their regulations for limiting VOC emissions from polyester resin operations.

In July 2008, the EPA published a new CTG for Fiberglass Boat Manufacturing Materials. The CTG was developed based on the 1990 VOC assessment, the 2001 NESHAP, existing state VOC emission reduction approaches, and in consideration of information obtained since the issuance of the 2001 NESHAP.

### **Requirements**

Resins containing styrene and gel coats containing both styrene and methyl methacrylate (MMA) are the main contributors of VOC emissions at fiberglass boat manufacturing

facilities. The proposed standards are designed to reduce VOC emissions during fiberglass boat manufacturing operations. Not all the VOCs in the materials used are emitted to the atmosphere, as some of the VOCs are used in cross linking reactions of polymers and are retained in the finished material. Thus, an overall reduction of VOC content in production materials reduces potential emissions from extraneous VOCs during the manufacturing process.

Cleaning activities other than surface preparation also occur at facilities engaged in fiberglass boat manufacturing. Cleaning materials are used to remove residue or other unwanted materials from equipment related to manufacturing operations such as molds and prototypes, as well as the cleaning of application equipment, transfer lines and other ancillary equipment. These cleaning materials are typically mixtures of VOC containing solvents. The proposed regulation includes emission control requirements for cleaning materials consistent with those in the CTG.

### **Affected Sources**

The proposed regulation affects fiberglass boat manufacturers.

### **New Regulation and Amendment**

COMAR 26.11.19.26-1 is proposed to set the following standards for a fiberglass boat manufacturing facility with actual VOC emissions of 15 pounds or more per day:

| Operation          | Application Method                              | Monomer content<br>(percent by weight) | Total Resin<br>VOC Content<br>(percent by weight) |
|--------------------|---|--|---|
| Production resin   | Atomized resin<br>application (spray)           | 28                                     | 33  |
| Production resin   | Nonatomized resin<br>application                | 35                                     | 40  |
| Pigmented gel coat | Atomized or<br>nonatomized resin<br>application | 33                                     | 38  |
| Clear gel coat     | Atomized or<br>nonatomized resin<br>application | 48                                     | 53  |
| Tooling resin      | Atomized resin<br>application (spray)           | 30                                     | 35  |
| Tooling resin      | Nonatomized resin<br>application                | 39                                     | 44  |
| Tooling gel coat   | Atomized or<br>nonatomized resin<br>application | 40                                     | 45  |

These monomer content limits are the same as those in the 2001 NESHAP. The regulation also provides an alternative option of emission rates for monomers and non monomers and exemptions for certain specific applications.

The work practice requirements establish standards and record keeping requirements for the usage of all VOC containing materials.

COMAR 26.11.19.26 Control of Volatile Organic Compounds from Reinforced Plastic Manufacturing is amended to exempt fiberglass boat manufacturing.

### **Impact on Ambient Air Quality**

The proposed regulation sets standards for fiberglass boat manufacturing operations. Emissions of VOCs from fiberglass boat manufacturing operations are expected to be reduced by approximately 40 percent nationally. Maryland only has one known source that may, on occasion, assemble fiberglass boats from pre-manufactured hulls and decks. Therefore Maryland VOC emission benefits will be negligible. The coatings industry already has products available to meet VOC standards contained in the CTG and proposed regulation. The maximum benefit from VOC reductions will be provided during the ozone season when VOCs readily combine with NO<sub>x</sub> to form the pollutant ground level ozone.

### **Economic Impact**

The proposed new regulation adopts the requirements of the CTG for fiberglass boat manufacturing. EPA estimated the economic impact of this regulation on a national level. Cost effectiveness is approximately \$ 4,200/ton of VOC controlled. Due to the limited number of affected sources, the economic impact in MD will be small.

### **Small Business**

The proposed regulation affects fiberglass boat manufacturers. At a national level, EPA estimates the economic impact of using reformulated materials on small businesses is low.

### **Submission to EPA as Revision to Maryland's SIP (or 111(d) Plan, or Title V Program)**

The proposed regulation will be submitted to the U.S. EPA for approval as a revision to Maryland's State Implementation Plan.

### **Are there other State or federal requirements that apply to these sources?**

The amendments and proposed regulation adopt the requirements in EPA's CTG for Fiberglass Boat Manufacturing, July 2008. There are no other federal reasonably available control technology standards for this category.